

REMARKS

Support for the above-requested amendments to claim 1 is found at least at page 11, lines 14 – 23, page 12, lines 7 – 28, and Figure 4. Support for the amendments made to claim 12 is found at least at page 10, lines 3 – 6. Support for the above-requested amendments to claims 13 and 14 is found at least at page 17, lines 2 – 11 and Figures 6A and 6B. The above-requested amendments to claim 27 are supported at least by page 21, lines 3 – 19. Claim 28 has been amended to correct an inadvertent typographical error. Claim 29 has been amended to depend from claim 28. Newly added claim 31 is supported at least by page 11, lines 14 – 23 and Figure 3A. Newly added claim 32 is supported at least by page 21, lines 12 – 19. Support for newly added claim 33 is found at least at page 13, lines 1 – 7. Newly added claim 34 is supported at least by page 18, line 23 – page 19, line 7 and Figure 7B. New claims 35 and 37 are supported at least by page 13, lines 12 – 21. Newly added claim 36 is supported at least by page 13, lines 12 – 21. Support for newly added claim 38 is found at least at page 11, lines 14 – 23, page 12, lines 7 – 28, page 13, lines 12 – 21, and Figures 3A and 3C. New claim 39 is supported at least by page 9, lines 17 – 25. Support for newly added claim 40 is found at least at page 10, lines 3 – 6. Newly added claim 41 is supported at least by page 13, lines 1 – 7. Support for new claim 42 is found at least at page 21, lines 3 – 7. No question of new matter arises and entry of the amendments is respectfully requested.

Claims 1 – 14 and 27 - 42 are before the Examiner for consideration.

Formal Matter

As shown above, Applicant has added new claims 31 – 42 by amendment. Because claims 15 – 26 have been canceled, the total number of claims Applicant is submitting for examination does not change. Therefore, Applicant respectfully submits that no additional

filing fees are required for newly added claims 31 – 42. In addition, Applicant respectfully submits that there are no fees required for new independent claim 38 because claim 15, which was canceled from this application, was also an independent claim. Thus, the total number of independent claims present and paid for in the application has not changed. Furthermore, because support for these newly added claims is found throughout the specification, as identified in the opening paragraph of the Remarks, Applicant respectfully submits that these newly added claims do not contain any new matter.

Restriction Requirement

The Examiner has required an election in the above-identified application as follows:

Group I, Claims 1 – 14 and 27 - 30, drawn to a liner product; and

Group II, Claims 15 – 26, drawn to a method of making.

The Examiner indicates that during a telephone conversation with Stephen W. Barns on July 28, 2003, a provisional election was made with traverse to prosecute the invention of Group I, claims 1 – 14 and 27 - 30. Additionally the Examiner notes that claims 15 - 26 have been withdrawn from further consideration as being drawn to a non-elected invention.

In response to this restriction requirement, Applicant hereby affirms the election of Group I, claims 1 – 14 and 27 – 30 and cancels claims 15 - 26.

Rejection under 35 U.S.C. §112, second paragraph

Claims 12 – 14 and 29 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. In particular, the Examiner asserts that the term “co-fiberized material” is vague because it is unclear what the term means and how it differs from claim 1. Claims 13 and 14 are asserted to be indefinite because the claims do not state a spatial relationship of

the first, second, and third portions or the relative diameter of the third fiber to the first and second fibers. Claim 29 has been rejected because there is insufficient antecedent basis for the "separate component".

In response to this rejection, Applicant has amended claim 12 to recite that the mineral fibers and organic fibers are entangled as a co-fiberized composite material. Applicant submits that this amendment clarifies the term "co-fiberized material" and renders this claim definite and different from claim 1. In addition, Applicant has amended claims 13 and 14 to define the spatial relationship between the first, second and third regions and to recite that the third diameter is larger than the second diameter. Further, Applicant has amended claim 29 to depend from claim 28 to provide proper antecedent basis for the term "the separate component".

In view of the above, Applicant submits that the claims are sufficiently definite and respectfully request reconsideration and withdrawal of this rejection.

Rejection under 35 U.S.C. §103(a)

Claims 1 – 8, 11 – 12, and 27 – 30 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Byma (U.S. Patent No. 6,413,613B1) in view of Bakhshi *et al.* (U.S. Patent No. 5,736,475). In particular, the Examiner asserts that Byma discloses an integrated headliner structure provided with zones or areas of differing resilience and/or compressibility. The Examiner specifically refers to Figure 3 and asserts that Figure 3 illustrates a headliner with thicker edge portions that correspond to the lofted regions and thinner sections that equate to the compacted regions claimed in the application. The Examiner admits that Byma fails to teach the use of a composite material that includes mineral fibers and organic fibers. In this regard, the Examiner cites Bakhshi *et al.* as teaching a product formed of mineral and

organic fibers which has a great degree of flexibility and handleability. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the headliner of Byma and provide it with a composition that includes mineral and organic fibers as shown in Bakhshi *et al.*

Applicant respectfully traverses this rejection in view of the following remarks.

With respect to claims 1 – 12, Applicant respectfully directs the Examiner's attention to the amendments made to independent claim 1 and submits that claim 1, as amended, defines a liner that is not taught or suggested within Byma and/or Bakhshi *et al.* Byma teaches an energy management element, such as a headliner for an automobile, that is formed of an array of tube-like polymeric members that can be formed to match the different energy management requirements within a vehicle. (See column 4, lines 25 – 35 and column 9, lines 37 – 41). Byma also teaches that the tube-like material can be provided with different zones or areas of differing resilience and/or compressibility within the structure of the element to meet the specific energy management requirements of the product. (See column 4, lines 49 – 57 and column 11, lines 27 - 31). However, Byma does not teach or suggest the arrangement of lofted and compacted regions with varying thicknesses for selectively absorbing sound energy as claimed in independent claim 1. Further, Byma teaches that acoustic properties may dictate that the thickness of the headliner be maintained throughout its center portion. (See column 12, lines 19 – 28). Thus, Byma teaches away from the invention claimed in claim 1 where there are at least two lofted regions of different thicknesses for selectively absorbing sound and at least one highly compacted region forming a central portion between the two lofted regions. As a result, independent claim 1 cannot be anticipated by, or be obvious over, Byma. Furthermore, Bakhshi *et al.* add nothing to the teachings of Byma to meet the features of the invention as set forth in amended claim 1. Thus, claim 1, and all

claims dependent therefrom, are not anticipated by, or obvious over, Byma and/or Bakhshi *et al.*

With respect to the Examiner's rejection of claims 27 – 30, Applicant submits that none of the Examiner's cited references teach or suggest the headliner as presently claimed. In particular, Applicant submits that neither Byma nor Bakhshi *et al.* teach or suggest a headliner that has a base portion for absorbing sound formed of a plurality of mineral and organic fibers having a first diameter and a lofted perimeter region for absorbing impact energy formed of a plurality of mineral and organic fibers having a second diameter which is greater than the first diameter as claimed in amended independent claim 27. Because Byma and Bakhshi *et al.* do not teach or suggest a headliner having a base portion and a lofted perimeter region where the mineral and organic fibers of the base portion have a smaller diameter than the diameter of the mineral and organic fibers that make up the lofted perimeter region as claimed in amended claim 27, the combination of Byma and Bakhshi *et al.* cannot result in the presently claimed invention.

Moreover, Applicant submits that there is no motivation for one of skill in the art to arrive at the invention claimed in independent claim 27 based on the disclosures of the cited references. Motivation to combine references must come from the teachings of the prior art, the nature of the problem being solved by the references being combined, or the knowledge of one of ordinary skill in the art. There is simply no motivation from any of these sources to form a headliner that has a base portion for absorbing sound formed of a plurality of mineral and organic fibers having a first diameter and a lofted perimeter region for absorbing impact energy formed of mineral and organic fibers having a second diameter. Accordingly, Applicant respectfully submits that independent claim 27, and all claims dependent therefrom, are patentably distinguishable over Byma and Bakhshi *et al.*

With respect to newly added claims 38– 42, Applicant submits that neither Byma nor Bakhshi *et al.* teach or suggest a liner that includes a base portion having at least one lofted region for selectively absorbing sound energy, one compacted region, and at least one angled region for reflecting sound energy in a particular direction as claimed in independent claim 38. Although Byma notes in the background section that automotive headliners are required to absorb energy upon impact with a person's head (energy management) and are required to provide a degree of acoustic dampening (*see* column 1, lines 35 – 39), Byma is silent as to any teaching of reflecting sound energy. In addition, and as discussed above, Byma teaches that acoustic properties may dictate that the thickness of the headliner be maintained throughout its center portion. Thus, Byma does not teach or suggest a liner having a base portion that includes at least one lofted region for selectively absorbing sound energy and at least one angled region for reflecting sound energy. Moreover, Applicant submits that one of ordinary skill in the art reading the disclosure of Byma would not be motivated to design a headliner that includes both at least one lofted region for selectively absorbing sound and at least one angled region to reflect sound energy and arrive at the invention claimed in independent claim 38 because the teachings of Byma are directed to energy management. As a result, claim 38 cannot be anticipated by, or be obvious over, Byma. Furthermore, Bakhshi *et al.* adds nothing to the teachings of Byma to meet the features of the invention as set forth in newly added claim 38. Because claims 39 – 42 are dependent on claim 38, which is neither taught nor suggested by Byma, and because Bakhshi *et al.* do not make up for the deficiencies of Byma, Applicant submits that the combination of the Examiner's cited references neither teaches nor suggests the presently claimed invention. Thus, independent claim 38, and all claims dependent therefrom, are non-anticipatory, non-obvious, and patentable.

In view of the above, Applicant submits that the present invention is not anticipated by, or obvious over, Byma and/or Bakhshi *et al.* and respectfully requests that this rejection be reconsidered and withdrawn.

Rejection under 35 U.S.C. §103(a)

Claims 9 and 10 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Bakhshi *et al.* (U.S. Patent No. 5,736,475) and Byma (U.S. Patent No. 6,413,613B1) in further view of Erickson (WO 00/44561). The Examiner admits that both Bakhshi *et al.* and Byma do not teach the use of a fabric layer and a foam. The Examiner cites Erickson as teaching a thermoformable laminate that can be shaped into a headliner. In addition, the Examiner asserts that Erickson teaches that the thermoformable laminate includes a rigid thermoplastic foam sheet, a fiber reinforcing layer, and an upholstery fabric adhered to the fiber reinforcing layer. The Examiner concludes that it would have been obvious to one of ordinary skill in the art to modify the liner of Byma and provide it with a foam layer for rigidity and a fabric layer for aesthetic purposes as shown in Erickson.

In response to this rejection, Applicant respectfully directs the Examiner's attention to the amendments made to independent claim 1 set forth above. As discussed above, amended claim 1 defines a liner which is neither taught nor suggested within Bakhshi *et al.* and/or Byma. Moreover, Erickson adds nothing to the teachings of Bakhshi *et al.* or Byma to meet the features of the invention as set forth in amended claim 1. Therefore, Applicant respectfully submits that amended independent claim 1 is patentably distinguishable over Bakhshi *et al.*, Byma, and/or Erickson, either alone or in combination. Because claims 9 and 10 are dependent upon claim 1, which is not taught or suggested within the cited references, Applicant submits that claims 9 and 10 are also not taught or suggested within Bakhshi *et al.*,

Application No. 10/039,026
Attorney Docket No.: 24970A

Byma, and/or Erickson, either alone or in combination. Furthermore, claims 9 and 10 add structural features that further define Applicant's invention over the cited references. As such, claims 9 and 10 are non-obvious and patentable.

In view of the above, Applicant submits that the present invention not anticipated by, or obvious over, Bakhshi *et al.*, Byma, and/or Erickson, either alone or in combination and respectfully requests that the Examiner reconsider and withdraw this rejection.

CONCLUSION

In light of the above, Applicant believes that this application is now in condition for allowance and therefore requests favorable consideration.

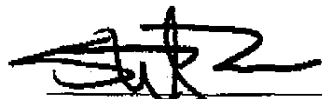
If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized to charge payment or credit any overpayment to Deposit Account No. 50-0568 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

Date:

20 Nov 2003



Stephen W. Barns
Registration No. 38,037

Owens Corning
Patent Department, Bldg. 11
2790 Columbus Road
Granville, Ohio 43023
(740) 321-7162

Page 15